



1999 Toxics Release Inventory

VIRGINIA

Reported Releases and Waste Management Activities (in pounds)

	Original Industries	New Industries	Total
On-site Releases	48,006,831	22,154,227	70,161,058
Air Emissions	41,234,709	18,894,559	60,129,268
Surface Water Discharges	4,708,404	61,418	4,769,822
Underground Injection Class I Wells	0	0	0
Underground Injection Class II-V Wells	0	0	0
On-site Land Releases to RCRA Subtitle C Landfills	7,960	0	7,960
Other On-site Land Releases	2,055,758	3,198,250	5,254,008
Off-site Releases (Transfers Off-site to Disposal)*	9,404,249	1,004,298	10,408,547
Total On- and Off-site Releases	57,411,080	23,158,525	80,569,605
Recycled On-site	133,276,080	57,674	133,333,754
Recycled Off-site	25,108,105	974,873	26,082,978
Energy Recovery On-site	36,279,012	0	36,279,012
Energy Recovery Off-site	8,234,163	6,677	8,240,840
Treated On-site	103,975,102	10,469,622	114,444,724
Treated Off-site**	19,151,167	25,623	19,176,790
Quantity Released On- and Off-site***	54,611,285	22,788,196	77,399,481
Total Production-related Waste Managed	380,634,914	34,322,665	414,957,579
Total Non-production-related Waste Managed	126,270	21	126,291

Transfers Off-site for Further Waste Management/Disposal

Recycling	26,564,962	791,561	27,356,523
Energy Recovery	7,756,956	6,928	7,763,884
Treatment	1,324,435	3,612	1,328,047
Publicly Owned Treatment Works (POTWs)	17,653,192	24,210	17,677,402
Metals and Metal Compounds*	86,728	0	86,728
Non-metal TRI Chemicals**	17,566,464	24,210	17,590,674
Other Off-site Transfers****	0	0	0
Off-site Transfers to Disposal (not including metals to POTWs)	9,721,088	1,004,364	10,725,452
Total Transfers Off-site for Further Waste Management/Disposal	63,020,633	1,830,675	64,851,308

* Transfers to POTWs of metals and metal compounds are included in off-site releases. Excludes transfer amounts sent for disposal to other TRI facilities reporting that amount released on-site.

** Transfers to POTWs of non-metals are included in treated off-site waste management activity.

*** Excludes non-production-related releases; e.g. releases due to catastrophic events or remedial actions.

****Transfers reported without a valid waste management code.

For More Information . . .

State Contact:

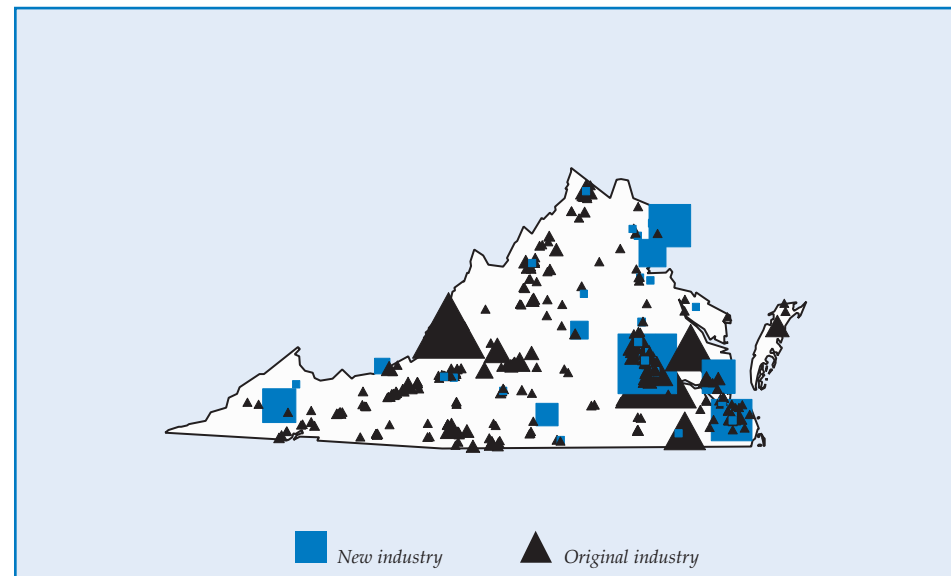
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To obtain TRI data use assistance, call TRI User Support Service (TRI-US):

(202) 260-1531
Fax: (202) 401-2347



The largest marker in the state map represents the largest facility for on-site releases in the state of Virginia. All markers are proportionally-sized to represent the on-site releases at each facility within this state.

State/TRI Data

Population	6,872,912
Square Miles	39,598
Total Facilities	464
Total Forms	1,669
Form As	258

	Original Industries	New Industries	Total
National Rank for Total On- and Off-site Releases*			
Rank	16	27	24
Pounds	57,411,080	23,158,525	80,569,605
National Rank for Total On-site Releases**			
Rank	18	27	25
Pounds	48,006,831	22,154,227	70,161,058
National Rank for Total Releases within State***			
Rank	17	27	24
Pounds	57,038,054	22,836,684	79,874,738
National Rank for Production-related Waste Managed			
Rank	18	30	22
Pounds	380,634,914	34,322,665	414,957,579

* Includes transfers out-of-state for disposal. Excludes transfer amounts sent for disposal to other TRI facilities reporting that amount released on-site.

** Includes amounts released at the facility. Excludes amounts transferred to other sites.

*** Excludes transfers for disposal sent out-of-state or sent to other TRI facilities within the state reporting that amount released on-site.



1999 Toxics Release Inventory

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On-site and Off-site Releases for Top Ten Chemicals Ranked on Total Releases in the State (Original Industries)

CAS Number	Chemical	On-site Releases				Off-site Releases	Total Releases in the State**	Off-site Transfers to Disposal		
		Air Emissions Pounds	Surface Water Discharges Pounds	Underground Injection Pounds	On-site Releases to Land Pounds	Transfers Off-site to Disposal* Pounds		Transferred Into State Pounds	Transferred Within State Pounds	Transferred Out of State Pounds
67-56-1	Methanol	11,523,076	64,203	0	54,051	66,051	11,707,381	0	51,010	15,041
7664-41-7	Ammonia	7,792,011	207,798	0	877	200,385	8,201,071	34	8,108	192,277
108-88-3	Toluene	4,269,293	1,871	0	10,446	723	4,282,333	0	711	12
--	Nitrate compounds	4,674	4,145,236	0	0	16,200	4,166,110	0	8,645	7,555
7647-01-0	Hydrochloric acid	3,196,056	0	0	0	88	3,196,144	0	0	88
7440-66-6	Zinc (fume or dust)	10,849	6,581	0	29,512	2,989,427	3,036,369	0	2,926,839	62,588
1332-21-4	Asbestos (friable)	296	0	0	0	2,451,886	2,452,182	0	2,451,886	0
--	Zinc compounds	81,111	25,309	0	713,461	1,219,145	2,039,026	77,472	1,075,772	143,686
78-93-3	Methyl ethyl ketone	1,622,658	2,725	0	4,458	1,070	1,630,911	0	315	755
--	Manganese compounds	21,035	125,026	0	424,772	827,510	1,398,343	13,609	923,588	2,123

* Excludes amounts transferred to other TRI facilities in the state reporting that amount released on-site.

** The chemical ranking is based on the amounts in this column.

On-site and Off-site Releases for Top Ten Chemicals Ranked on Total Releases in the State (Seven New Industries)

CAS Number	Chemical	On-site Releases				Off-site Releases	Total Releases in the State**	Off-site Transfers to Disposal		
		Air Emissions Pounds	Surface Water Discharges Pounds	Underground Injection Pounds	On-site Releases to Land Pounds	Transfers Off-site to Disposal* Pounds		Transferred Into State Pounds	Transferred Within State Pounds	Transferred Out of State Pounds
7647-01-0	Hydrochloric acid	13,406,111	0	0	0	0	13,406,111	0	0	0
7664-93-9	Sulfuric acid	3,601,499	0	0	0	0	3,601,499	0	0	0
--	Barium compounds	1,937	21,613	0	1,455,010	299,675	1,778,235	0	296,885	2,790
7664-39-3	Hydrogen fluoride	1,464,355	0	0	0	0	1,464,355	0	0	0
--	Copper compounds	1,870	5,005	0	330,260	111,016	448,151	4,320	110,511	505
--	Manganese compounds	58,227	23,821	0	329,210	35,310	446,568	0	35,300	10
--	Zinc compounds	7,630	5,435	0	345,810	54,505	413,380	50	54,000	505
--	Chromium compounds	61,098	167	0	226,110	60,060	347,435	2,483	59,659	401
--	Nickel compounds	46,145	1,025	0	215,410	63,255	325,835	0	63,000	255
107-21-1	Ethylene glycol	17	0	0	0	184,412	184,429	131	0	184,412

* Excludes amounts transferred to other TRI facilities in the state reporting that amount released on-site.

** The chemical ranking is based on the amounts in this column.



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On- and Off-site Releases for Top Ten Facilities Ranked on Total On-site Releases in the State (Original Industries)

Facility, City, County	On-site Releases						Total On-site Releases* Pounds	Off-site Releases (Transfers Off-site to Disposal)	
	Underground Injection				On-site Releases to Land			Transferred Within State Pounds	Transferred Out of State Pounds
	Air Emissions Pounds	Surface Water Discharges Pounds	Class I Wells Pounds	Class II-V Wells Pounds	RCRA Subtitle C Landfills Pounds	Other On-site Land Releases Pounds			
Honeywell Intl. Inc. Hopewell Plant, Hopewell, Hopewell City	5,098,815	365,830	0	0	0	0	5,464,645	16,900	0
Westvaco of Virginia. Inc., Covington, Alleghany	4,549,049	7,860	0	0	0	240,991	4,797,900	0	0
St. Laurent Paper Prods. Corp., West Point, King William	2,673,247	115,044	0	0	0	418,709	3,207,000	0	0
International Paper Franklin Mill, Franklin, Isle of Wight	2,226,659	249,293	0	0	0	0	2,475,952	542,248	0
Fibermark Inc., Richmond, Henrico	1,830,470	0	0	0	0	0	1,830,470	0	0
Stone Container Corp., Hopewell, Hopewell City	1,757,586	0	0	0	0	0	1,757,586	484,800	0
Quebecor World Richmond Inc., Richmond, Henrico	1,638,600	0	0	0	0	0	1,638,600	0	5
Georgia-Pacific Corp., Big Island, Bedford	1,106,933	36,257	0	0	0	226,240	1,369,430	0	0
Philip Morris USA - BL/LPF/TQAF, Richmond, Richmond City	1,292,265	0	0	0	0	0	1,292,265	1,400	0
Perdue Farms Inc. Accomac Processing Plant, Accomac, Accomack	15,001	1,100,070	0	0	0	0	1,115,071	0	0

*The facility ranking is based on the amounts in this column; these quantities exclude transfers out of state.

On- and Off-site Releases for Top Ten Facilities Ranked on Total On-site Releases in the State (Seven New Industries)

Facility, City, County	On-site Releases						Total On-site Releases* Pounds	Off-site Releases (Transfers Off-site to Disposal)	
	Underground Injection				On-site Releases to Land			Transferred Within State Pounds	Transferred Out of State Pounds
	Air Emissions Pounds	Surface Water Discharges Pounds	Class I Wells Pounds	Class II-V Wells Pounds	RCRA Subtitle C Landfills Pounds	Other On-site Land Releases Pounds			
Chesterfield Power Station, Chester, Chesterfield	4,097,707	12,867	0	0	0	822,000	4,932,574	0	1,030
Pepco Potomac River Generating Station, Alexandria, Alexandria City	3,301,510	3,500	0	0	0	0	3,305,010	0	187,000
Chesapeake Energy Center, Chesapeake, Chesapeake City	2,590,886	9,591	0	0	0	610,000	3,210,477	0	0
American Electric Power Clinch River Plant, Cleveland, Russell	2,262,490	502	0	0	0	231,870	2,494,862	0	2,445
Yorktown Power Station, Yorktown, York	2,450,140	21,253	0	0	0	0	2,471,393	256,900	0
Possum Point Power Station, Dumfries, Prince William	1,595,600	6,364	0	0	0	299,000	1,900,964	0	500
Clover Power Station, Clover, Halifax	411,680	3,775	0	0	0	1,020,000	1,435,455	0	0
Bremo Power Station, Bremo Bluff, Fluvanna	843,700	3,030	0	0	0	150,000	996,730	0	0
Glen Lyn Plant, Glen Lyn, Giles	722,459	195	0	0	0	64,130	786,784	203,000	725
James River Cogeneration Co. Inc., Hopewell, Hopewell City	160,000	0	0	0	0	0	160,000	0	0

*The facility ranking is based on the amounts in this column; these quantities exclude transfers out of state.



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Total Production-related Waste for Top Ten Facilities Ranked on Quantity Released On- and Off-site (Original Industries)

Facility, City, County	Recycled On-site Pounds	Recycled Off-site Pounds	Energy Recovery On-site Pounds	Energy Recovery Off-site Pounds	Treated On-site Pounds	Treated Off-site Pounds	Quantity Released On- and Off-site*	Total Production- related Waste Managed Pounds	Total Non- Production- related Waste Managed Pounds
Honeywell Intl. Inc. Hopewell Plant, Hopewell, Hopewell City	3,141,000	0	1,729,800	0	3,438,060	889,090	5,172,555	14,370,505	0
Westvaco of Virginia. Inc., Covington, Alleghany	0	0	2,451,000	0	19,007,830	0	4,741,399	26,200,229	0
Roanoke Electric Steel Corp., Roanoke, Roanoke	0	0	0	0	0	0	3,692,419	3,692,419	0
St. Laurent Paper Prods. Corp., West Point, King William	0	0	912,022	0	4,440,877	0	3,209,123	8,562,022	12
International Paper Franklin Mill, Franklin, Isle of Wight	170,000	0	1,600,104	0	36,182,601	0	3,030,000	40,982,705	4
Stone Container Corp., Hopewell, Hopewell City	0	0	9,990	0	0	5,453,920	2,244,836	7,708,746	0
Quebecor World Richmond Inc., Richmond, Henrico	23,941,985	4,012	0	26,873	0	0	1,638,600	25,611,470	0
Fibermark Inc., Richmond, Henrico	5,753,863	0	0	1,866	0	0	1,624,774	7,380,503	0
Georgia-Pacific Corp., Big Island, Bedford	0	0	0	0	1,568,719	0	1,349,474	2,918,193	90
Philip Morris USA - BL/LPF/TQAF, Richmond, Richmond City	0	0	0	0	0	21,520	1,292,265	1,313,785	0

*The facility ranking is based on the amounts in this column; these quantities exclude non-production-related releases.

Total Production-related Waste for Top Ten Facilities Ranked on Quantity Released On- and Off-site (Seven New Industries)

Facility, City, County	Recycled On-site Pounds	Recycled Off-site Pounds	Energy Recovery On-site Pounds	Energy Recovery Off-site Pounds	Treated On-site Pounds	Treated Off-site Pounds	Quantity Released On- and Off-site*	Total Production- related Waste Managed Pounds	Total Non- Production- related Waste Managed Pounds
Chesterfield Power Station, Chester, Chesterfield	0	0	0	0	880,000	0	4,932,000	5,812,000	0
Pepco Potomac River Generating Station, Alexandria, Alexandria City	0	0	0	0	68,000	0	3,491,000	3,559,000	0
Chesapeake Energy Center, Chesapeake, Chesapeake City	0	0	0	0	480,000	0	3,209,000	3,689,000	0
Yorktown Power Station, Yorktown, York	0	0	0	0	330,000	0	2,732,000	3,062,000	0
American Electric Power Clinch River Plant, Cleveland, Russell	0	108,300	0	0	360,000	0	2,501,600	2,969,900	0
Possum Point Power Station, Dumfries, Prince William	0	0	0	0	250,000	0	1,797,000	2,047,000	0
Clover Power Station, Clover, Halifax	0	0	0	0	4,120,000	0	1,431,500	5,551,500	0
Bremo Power Station, Bremo Bluff, Fluvanna	0	0	0	0	120,000	0	998,000	1,118,000	0
Glen Lyn Plant, Glen Lyn, Giles	0	14,760	0	0	200,000	0	987,000	1,201,760	0
James River Cogeneration Co. Inc., Hopewell, Hopewell City	0	0	0	0	0	0	160,000	160,000	0

*The facility ranking is based on the amounts in this column; these quantities exclude non-production-related releases.